

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said distal portion of the balloon being bonded to the [outer] inner tubular member [near the distal end of the outer tubular member] and said proximal portion of the balloon being bonded to the outer tubular member [proximal to the distal portion of the balloon];

a coupling member having a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen of the coupling lumen communicating with the lumen between the outer tubular member and the inner tubular member; and,

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.

REMARKS

In order to expedite prosecution of this application, claims 1, 6 and 11 have been amended to correct inaccuracies and to conform with the specification, and also in a manner that clearly distinguishes applicant's invention with respect to the prior art. Reconsideration and allowance of the application as amended are respectfully requested.

Applicant's claims now point out that applicant's novel balloon catheter comprises a catheter body comprising an outer tubular member having an outer tubular wall with a lumen extending through the length of the outer tubular member. The catheter body also includes an inner tubular member, with the inner tubular member being disposed through the lumen of the outer tubular member to form a lumen between

the outer tubular member and the inner tubular member. An inflatable balloon extends from the main body portion, with the distal portion of the balloon being bonded to the inner tubular member and the proximal portion of the balloon being bonded to the outer tubular member. A coupling member having a lumen extending therethrough is mounted on the proximal end of the outer tubular member. The lumen of the coupling member communicates with the lumen between the outer tubular member and the inner tubular member. A vent aperture is provided for purging air from the lumen of the catheter body. The vent aperture extends radially through the outer wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.

None of the prior art references discloses applicant's invention as claimed. For example, the Examiner has rejected claim 11 as being anticipated by Maria Van Erp. There is no anticipation because Maria Van Erp does not disclose a balloon catheter in which the distal portion of the balloon is bounded to the inner tubular member as claimed. In fact, Maria Van Erp teaches away from this structure because in Maria Van Erp, the distal portion of the balloon is bonded to an outer tubular member and thus the fluid flow in the Maria Van Erp catheter is completely different from the fluid flow of applicant's balloon catheter. The significant difference in fluid flow between the Maria Van Erp catheter and applicant's catheter inherently results from the differences in the outer tubular member and inner tubular member positioning and the manner in which the liquid is applied by a syringe within the lumen of the outer tubular member. Applicant's claims are now in a condition that very clearly obviates any anticipation rejection.

Further, it is submitted that the present invention would not have been obvious at the time of the invention and a rejection under 35 U.S.C. 103(a) is inappropriate. In any event, the Maria Van Erp patent cannot be used as a reference to reject any claims under 35 U.S.C. 103 because Maria Van Erp is owned by Cordis Corporation, the assignee of the present application, and the subject matter of the Maria Van Erp patent and the claimed invention of the present application were, at the time the invention was made, owned by Cordis Corporation or subject to an obligation of assignment to Cordis Corporation. See 35 U.S.C. §103(c).

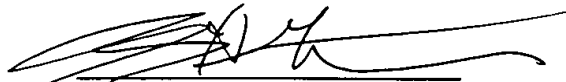
Obviously, the patents to Rydell, Burns et al., Carlblom and Follmer et al. do not teach applicant's invention as claimed and since Maria van Erp is inapplicable with respect to the present invention, rejection of the claims under 35 U.S.C. 103 should be withdrawn.

With respect to the drawings, reference numeral 14 should be shown in Fig. 1 as illustrated in red on the attached print, and the examiner is requested to approve the corrected drawing with reference numeral 14 applied.

In view of the foregoing amendments and remarks, it is submitted that the application is now in condition for allowance and an early notice of allowance is respectfully requested.

Respectfully submitted,

SEYFARTH SHAW



George H. Gerstman
Registration No. 22,419
Attorney for Applicant

SEYFARTH SHAW
55 East Monroe Street
Suite 4200
Chicago, Illinois 60603
(312) 346-8000

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Box AF Commissioner for Patents, Washington, D.C. 20231, on April 21, 2003.



Registered Attorney for Applicant
Date: April 21, 2003

Clean Copy of the Amended Claims

1. (Twice Amended) A balloon catheter comprising:

a catheter body comprising an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a lumen extending therethrough, said inner tubular member being disposed through said lumen of the outer tubular member to form a lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said distal portion of the balloon being bonded to the inner tubular member and said proximal portion of the balloon being bonded to the outer tubular member, said inflatable balloon being formed from a gas-permeable material;

a coupling member having a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen of the coupling member communicating with the lumen between the outer tubular member and the inner tubular member;

a syringe coupled to said coupling member for applying a liquid within the lumen of the outer tubular member; and,

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer tubular wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.

6. (Twice Amended) A balloon catheter comprising:

a catheter body including an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a lumen extending therethrough, said inner tubular member being disposed coaxially through said lumen of the outer tubular member to form a lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said proximal portion of the balloon being bonded to the outer tubular member and the distal portion of the balloon being bonded to the inner tubular member, said inflatable balloon being formed from a gas-permeable material;

a coupling member having a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen of the coupling member communicating with the lumen between the outer tubular member and the inner tubular member;

a syringe coupled to said coupling member for applying a liquid within the lumen of the outer tubular member; and

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer tubular wall of the outer tubular member at a location proximal of the proximal end of the inflatable balloon.

11. (Twice Amended) A balloon catheter comprising:

a catheter body comprising an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a lumen extending therethrough, said inner tubular member being disposed through said lumen of the outer tubular member to form a lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said distal portion of the balloon being bonded to the inner tubular member and said proximal portion of the balloon being bonded to the outer tubular member;

a coupling member having a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen of the coupling lumen communicating with the lumen between the outer tubular member and the inner tubular member; and,

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.